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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/781,485	02/18/2004	Chuan-Chu Chen	250210-1050	3102

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THOMAS, KAYDEN, HORSTEMEYER & RISLEY, LLP
100 GALLERIA PARKWAY, NW
STE 1750
ATLANTA, GA 30339-5948

EXAMINER	
LIE, ANGELA M	

ART UNIT	PAPER NUMBER
2821	

DATE MAILED: 09/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	10/781,485	CHEN, CHUAN-CHU
	Examiner	Art Unit
	Angela M. Lie	2821

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *16 August 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *7-19* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *7-19* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *18 February 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 7, 9, 12, 14-15 and 17 are rejected under 35 U.S.C. 102(b) as being anticipated by McNamara, Jr (US 4047076).

As to claims 7 and 14, McNamara discloses an electronic device having an illumination circuit (Figure 11) comprising: a first load (Figure 11, element 34) wherein current flowing on the first load is reduced as time increases (wherein the circuit shown in figure 11 is capable of performing this function); an AC driving unit for generating an AC current (Figure 11, element AC source) to drive the first load (34); a current transformer having a primary winding (Figure 11, left side of the element 30) and a secondary winding (Figure 11, right side of the element 30), wherein the primary winding is coupled between the first load (34) and the AC driving unit (AC source), such that the secondary generates induced current (the function of the transformer); a second load having an illumination function (Figure 11, element 32), wherein the brightness of the second load is changed according to an AC driving voltage and wherein the brightness of the second load corresponds to an operating duration of the first load (it is an inherent feature that the brightness of the lamp varies based on the

supplied voltage, a good example of this is dimmer circuit for the lamp wherein the supply voltage is changed in order for the lamp to result in specific brightness. Furthermore operating duration of the first load (34) is considered to go on as long there is current flowing through this load, therefore the brightness of the second load indeed depends on an operating duration of the first load; and a transformation device (Figure 11, element 70), connected with the secondary winding (Figure 11, right part of the element 30) and the second load (Figure 11, element 32) in parallel, for transforming the induced current to the AC driving voltage to drive the second load (since in the second winding AC current is induced, the resistor (24) will naturally transform current into AC voltage).

As to claim 9, McNamara discloses the electronic device, wherein the transformation device comprises an impedance (Figure 11, element 70).

As to claim 12 and 17, McNamara discloses the electronic device wherein the first load is an AC lamp (Figure 11, element 34).

As to claim 15, McNamara discloses the electronic device (Figure 11) capable of the function wherein a current flowing on the first load becomes smaller and brightness of the second load is reduced over time (wherein it is inherent that once driving current becomes smaller brightness will all decrease, i.e. basic laws of physics).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 11 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over McNamara (US 4047076). McNamara does not explicitly teach that the driving circuit is used in a video projector, however it is well known in the art that all video that all video projectors have some sort of driving circuit delivering the power to the load which in case of a projector is a lamp or bulb, therefore it would have been obvious to one of the ordinary skill in the art during the time when the invention was made to use the circuit as disclosed in claims 7 and 14 in the video projector. It is also important to note that the circuit as disclosed in those claims is capable of being used in the video projector.

5. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over McNamara (US 4047076) in the view of Beeman et al (US 4590600). Filgas discloses all the limitations in claim 9; he does not teach however that the driving circuit further comprising a low-pass filter connected with the secondary winding in parallel. Beeman et al teach a circuit in which they connect low pass filter to the second winding of the transformer. It would have been obvious to one of the ordinary skill in the art during the time when the invention was made to connect a low pass filter to the second winding of the transformer, as suggested by Beeman et al, into the driving circuit as described by

Filgas, because low pass filter removes the high frequency interference (column 6 lines 1-4), and this is an important issue especially after signal is amplified i.e. step-up transformer. Furthermore, it is well known fact for ones skilled in the art that high frequency signals cause high vibration, which can result in overheating of elements, and this is an undesired effect.

6. Claims 8 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over McNamara (US 4047076) in the view of Filgas et al (US 4358712). As to claims 8 and 19, McNamara discloses all the limitations presented in claims 7 and 14 respectively, however he does not specifically point out that coil number of the primary winding is smaller than a coil number of the secondary winding. Filgas teaches that driving circuitry for a lamp that uses a step-up transformer (column 1, lines 44-49; wherein step-up transformer is equivalent with saying that the number of the primary winding is smaller than a coil number of the secondary winding). It would have been obvious to one of ordinary skill in the art during the time when the invention was made to use step up transformer (i.e. second winding having more turns than the primary winding) in the driving circuit as taught by McNamara, because the second load (main load) requires a lot of power, therefore there is a need for a transformer that have step-up capability i.e. produce more current.

7. Claims 13 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over McNamra (US 4047076) in the view of Rast et al (6426597). McNamara discloses all the limitations presented in claims 7 and 14, McNamara also teaches that the second

load is a discharge lamp, however he does not specifically state that this discharge lamp is an electroluminescent lamp. Rast teaches a driving circuit for an electroluminescent lamp (Figure 1, element EL). It would have been obvious to one of the ordinary skilled in the art during the time the invention was made to use an EL lamp as taught by Rast as a second load in the driving circuitry as taught by McNamara, because EL is commercially available type of a discharge lamp, furthermore it produces very bright light, what in most application for which lighting is used, it is a desirable feature.

Response to Arguments

8. Applicant's arguments, see reply to the first office action, filed on August 16, 2005, with respect to the rejection(s) of claim(s) 7-19 under 35 U.S.C. 103(a) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Filgas (US 4358712).

The Prior Art

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- US 20040113566 discloses a circuitry for sensing voltage for fluorescent lamp comprising: a first load, a transformer, a frequency filter and an illumination device as a second load.

- US 4099095 discloses an operating circuit for gaseous discharge and incandescent lamps comprising first and second load, transforming device, transformer.
- US 4017761 discloses an electric device for starting and supplying a discharge lamp comprising: transformer, first load, second load.

Conclusion

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Angela M. Lie whose telephone number is 571-272-8445. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Don Wong can be reached on 571-272-1834. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Angela M Lie

Wilson Lee
Primary Examiner